

GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Quercus Sonomensis Benth. - Hb Gray 1872

Bennet 1846 No 500

Hastings 1966

Kellogg & Hensford 903 1868/9

Mrs Ames, 1875 Plumes Co.

Commons 807 1875

Quercus dumosa Nutt. - Hb Gray 1872

299. a Bridges

186 Rottnest 1875

Palmer, Fort Yuma Road 1875

661 Galtier (original of Q. bicolorifolia Liebm.)

var. ballata 683. Lake Co. Calif. Gray 1865

is anomalous

another remarkable instance of mere botanical characters not always coinciding with essential ones. Hence the wood always is the first sentence of the following page must be qualified by ^{adding} almost.

Page. 381 & 383 The following is believed to be a more correct enumeration and more natural arrangement of our oaks.

I Lepto balanus, Endl.

A Leuco balanus.

* Maturatio annua.

† Folia decidua.

Q. alba, lobata, ~~(fruticosa)~~, Garryana, stellata, macrocarpa, lyrata, bicolor (Michauxii), Prinus, Mühlenbergii, (prinooides), Douglasii, undulata, (pungens oblongifolia), ~~††~~ Folia persistentia
Q. dumosa, reticulata, virens.

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** Maturatio biennis.

Q. chrysolepis, (vacciniifolia †, Palmeri), tomentella.

B Melano balanus; Q. laevis (excepta Q. Emoryi) supera etc. ut in pag 381.

(footnote) X The Black-oaks ^{many years ago} have been ~~distinguished~~ ^{grouped} by Grisebach and later by Liebmam and others under the name of Erythrobalanus (Red-oaks) but with other characters and other limits than I assign them.

* Maturatio annua, Folia persistentia.

† Folia decidua.

Q. Emoryi,

~~†† Folia persistentia~~.

~~(Q. agrifolia)~~, pumila, hypoleuca,

** Maturatio biennis

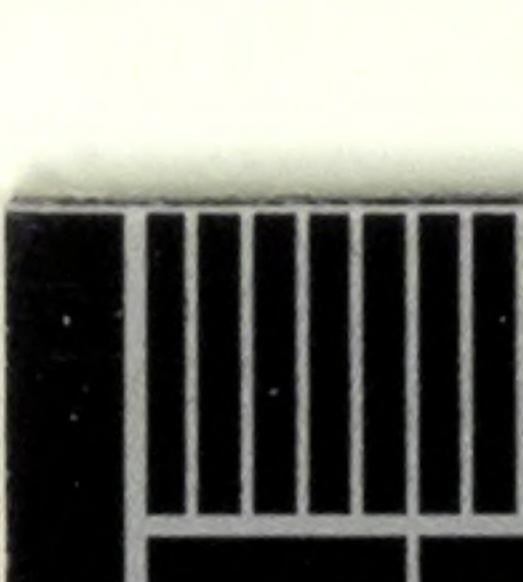
~~(Q. rubra)~~ ~~† Folia decidua~~

Q. rubra, coccinea, (tinctoria), Catesbeiana, falcata, liliifolia, palustris, Georgiana, aquatica, laevigata, nigra, cinerascens, imbricaria, Phellos.

Sonomensis,

~~†† Folia persistentia~~.

Q. wislizeni, myrtifolia.



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Quercus Emoryi Torrey - Hb Gray 1877

Wright (163. 432 for Gray) 1865 - 1851, with midrib
Wright 1869 No 606 (736 for Gray)

Quercus agrifolia Nees - Hb Gray 1877

299 The Bridges of a for.

906 Kellogg & Harford 1869 - a branch of Q. Westiana with its
leaves, Douglas, Calif.

Santa Rosa Creek, Bigelow in flora 1854

1963 Hartweg

227

Quercus Westiana: AdC. in Hb Gray 1877

227 Fremont 1845 a broad-leaved form, named agrifolia by Torrey
Calif. Douglas

15 Fremont Dec 1845 young shoot

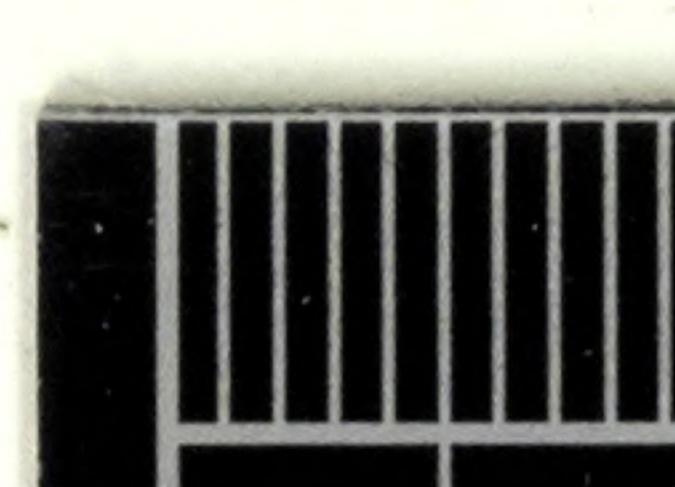
908 Kellogg & Harford 1869 ^{Cloverdale} a broad-oval leaved for, almost entire

909 K & H. "leaves on 8' high" narrow-leaved form, with

907 K & H. narrow nearly entire

480 Bronx Park, Torrey - without fruit

214 (1866) Fremont with small & entire leaves, no flower



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anther-scales obtuse or slightly cuspidate; berries globose, 3-4 lines thick, with 1-2 glabrous or more or less tuberculate seeds,

West Texas, where it forms forests and is an important timber tree, although not as large nor as easily worked and useful as the ~~Virginia~~ Cedar of the plains of eastern Texas" (F. Linnei). Berlandier 671. 2081, Linnei, Wright, Bigelow Hall. —^{Mr. Wright} collected a ~~form~~ ^{found} in the damp rocky wood of the mountains of eastern Cuba ^{a few individuals of a middle-sized tree, apparently very rare} of which only male specimens were obtained, Pl. Cub. 3187, J. Virginiana, Griseb. Pl. Cub. 217. It is a middle-sized tree which I can not distinguish from this Texan form, and what I take to be the same thing, has been sent from Mexico, by Sartorius in Hb. Torrey, and by Aschenborn ³⁸¹ from Jimapan, in the ~~Plat.~~ Berlin Herb., the latter with small 1-seeded berries.

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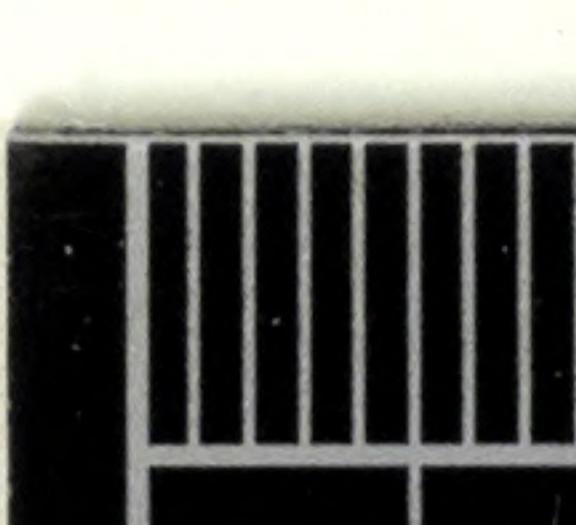
This form connects the northwestern J. occidentalis with the Virginian J. f. next species so that it is sometimes difficult to draw ^{clearly} ~~correctly~~ separate the ~~two~~ ^{them}.

6. J. tetragona, Schlechtend. A low bush with spreading branches and thick sharply quadangular closely appressed branchlets; leaves ^{obtuse}, strongly keeled, distinctly dentate; anther-scales obtusish, short-cuspidate; berries globose, dark blue-black (4-5 lines thick), 3-5-seeded, seeds angular and more or less grooved or pitted. — Linnaea, 12. 495 (1808), Part. 6. C. 491.

var. oligosperma, a bush or low tree; berries smaller, with 1 or 2 more regularly formed seeds.

Mexico, Real del Monte, Orenberg, Hartweg, 436, Whd., Orizaba, Linden. — A low shrub 2-6 feet high, the variety Saltillo, Gregg. 106 & 278, a small tree 10-30 feet high, with seeds somewhat similar to var. conjugans of the last species, ^{and occasionally protruding} but with stouter branchlets;

7. J. Sabina, Lin. var. procumbens, Pursh: a prostrate shrub with appressed or slightly squarrose acute leaves in pairs, margin slightly or indistinctly dentate; anther-scales obtusish, ^{nearly entire} ~~very~~ on short & rounded peduncles, 3-4 lines in diameter, with 1 or 2, rarely 3,



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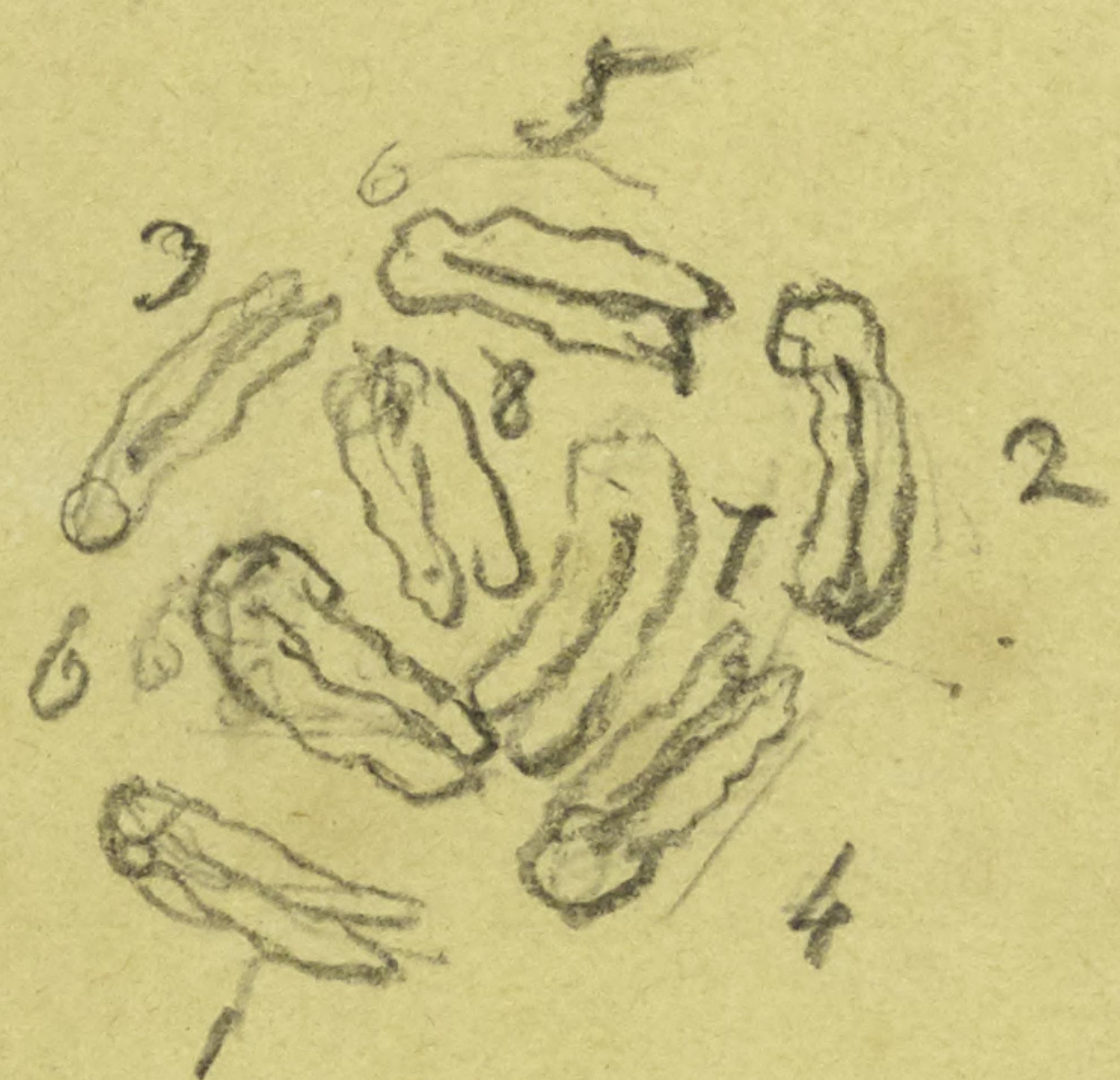
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Grevillea alba

Hort Bot. Missour. April 26
1877



G. mawsonia has the
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resination



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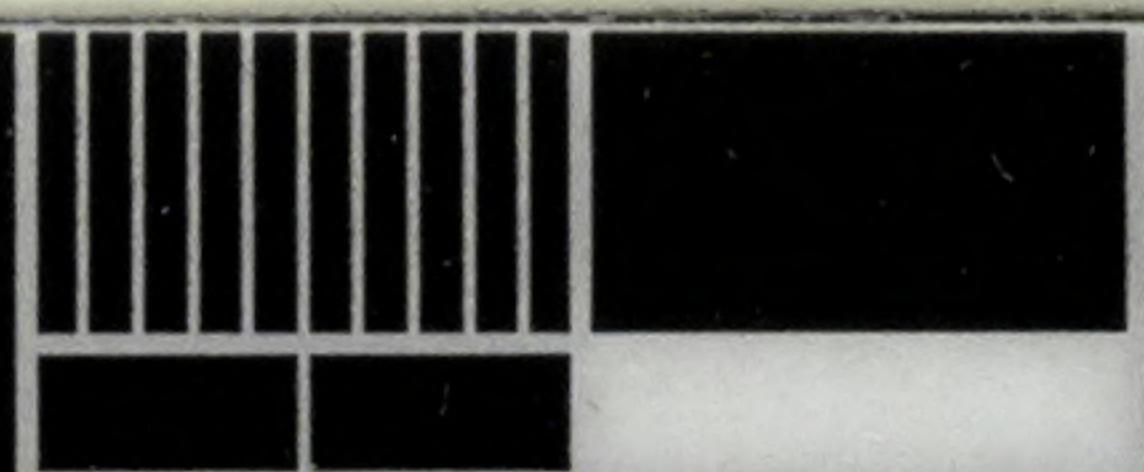
6414

Leitch & Corlies

DRUGGISTS

South West Corner Fifth and Market Streets.

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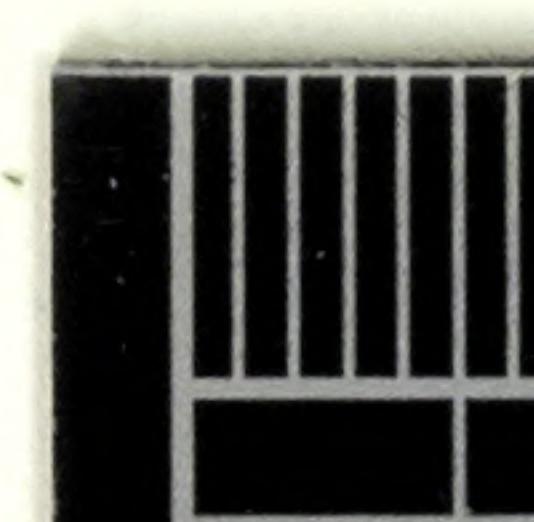
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Quercus 3



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Rec'd 1878

New Haven April 15th 1878

My Dear Dr. Engelmann

The *L. Honduras* or *L.*

longiglandae of my notes is the
L. lobata of Nees & of D. C. Prod. Vol
16 p. 24. It is the common
oak of the valleys of the interior
of the state and the coast range,
a majestic tree, its branches wide-
spreading, curving, the ends
often pendant - I have seen, in
extreme cases, the branches
thus drop as much as 25 and
even 30 feet. The wood is ^{brittle} ~~soft~~,
the bark very thick often four
and sometimes 5 inches thick.

The *L. garryana* & *L. Douglasii*
of my notes is a very ^{different} ~~different~~
thing - probably two things - a



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Douglas

smaller, Dec, grows on the arid
w^o hills, the tree not nearly so
large, the bark ^{more} thinner and
cracking in smaller and less ~~large~~[#] rugged
divisions, ~~it~~ often reminding me
very strongly of small or medium
trees of L. alba here east - the
wood better than that of L. lobata.

The foliage variable, sometimes
with a bluish tinge.

The bark on the great sprawling
branches of L. agripollia often
does not split until the trunks
are 18-20 inches in diameter, or
over 2 feet - but ^{remain} smooth
like beech with a sort of leathery
cork. The Mexicans call the L.
agripollia Encino, & the L. lobata
Roble.

James P. B. NuttBrewer-

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1336 Cobata Boddy orange Brewer
 no no Cobata *Europaeus* (near Oregon like) probably the one marked
 Oct 6 10 - Cov. Lake Cobalt - Chapman

1463 all acorns only, all the acorns on this tree (large tree) of this shape
 no no glassy long, knobs of purple shiny, leaves of Galbe, slightly stiffer
 and small. puberul. (Cobalt)

829 undulated - but small brown pubesc. - caps pointed, cup. knobby

1465 Cobata very long gland, very knobby, deep cup. Savonette Valley
 no no Neon Ranch large shallow knobby cup large round acorn

Yerka large round acorn in small hole very knobby cup - marked "Cobalt"
 1451 ovoid very, cup with long scales (cup much like Chrysolepis
 gregaria)

no no Chrysolepis ordinary form (near Clouds Fork) tips of scales
 of Cupula not visible, covered with fuzzy

2037 " with smaller leaves, smaller acorns, thin
 cup with slight fuzzy, tips of scales visible

1455 " " acorn small, cup small, short fuzzy, brown tips of scales

1466 " " very long acorn, shallow thick cup all fuzzy, no scale tips
 no no " " similar to last from Trinity Mts. vs. 6

Oregon Mts no no " very like " downy like" thin to brittle cap
 round acorn cup not fuzzy - perhaps the double
 plume now - - scales of cup somewhat knobby
 almost Chrysolepis

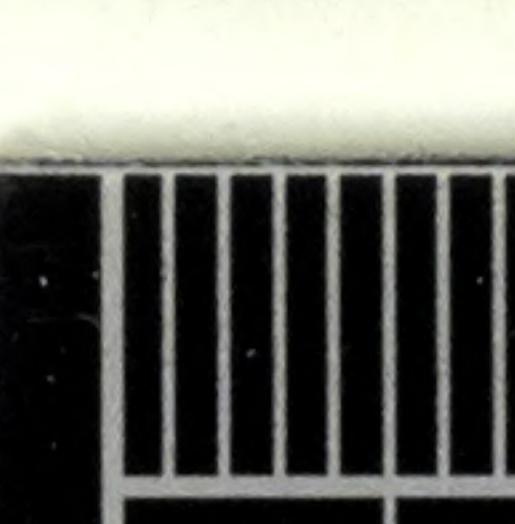
1467. *Wislizeni* 1. Deep cup long ^{base} acorns
 from more bushy 3-8' shorts etc see notes

836 Sam 843 m. Dr. D. Evergreen

120 *aymifolia* large acorns number not 5 Cobalt

1472 " 2. very slender acorn common see notes

1473 " 3. " same as last, from another tree



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Additional Remarks.

The highest trunks of (Agaves) in the cultivated state, which I find noticed, are 3-4 feet high, and 3-4 inches in diameter; the thickest one had was 14 inches through, but less high. I have met with no account of the size they may attain in their native country.

The scape of A. Americana is said to measure sometimes 36 feet in height.

The flowers of Agave are always more or less erect and of a coarser, calyceal texture, while those of Yucca are pendulous and corolline.

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Notice to Botanists.

I wish to direct the attention of botanists, who have the opportunity to observe the development of these plants, to the following points questions.

At what hour of the day do the anthers of the different species burst and begin to shed their pollen, and when do they become entirely effete, and in what state is then the style?

How long afterwards and when does the style of the same flower attain its full development, and when, and how much do the stigmatic lobes open or spread, and when does the stigmatic liquid fill the cavity of the style and cover the ^{inside of the} lobes?

I have above given an account of these physiological processes in A. Virginica, the only species which I could clearly observe in the only reference to them in the literature, which I can find, is made by Jacobi, Ag. 310, where he says (that the full development of the style and the separation and partial spreading of the ~~stigma~~ its lobes takes place



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Agave lechuguilla ^{or} ~~lechuguilla~~ 8
1271. Cañada del Puerto. - from 11.62 to top of dry moun-
tain (3200 ft. alt.) Low bushy stand, 4 to 6 ft.



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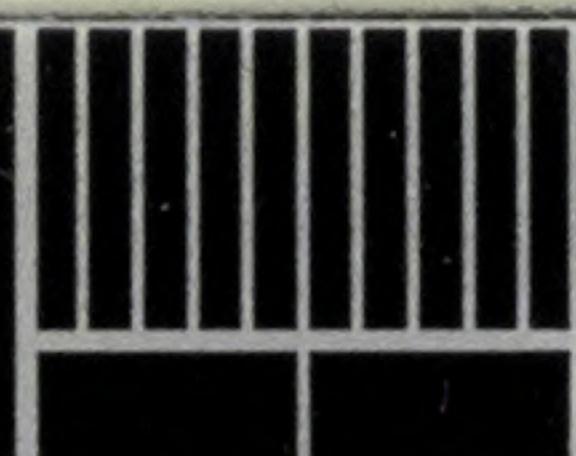


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water no act - Notes
th51 1463
6419

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of Brown afternoon I shall make it tomorrow
Stephens the 1st will teach
in future
I have
1472 aript
1467 aript
1466 chrysanthemum
I place in
general
6257
6061
1451
6056 is apart
6060
6066. b. Douglass 1254 & 5
1078
6056 Brown
839
6066 ad
6061



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